Design Process Characterization Evaluation

Index

Volume 4 Subject Index 1995

15B37H

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

2024 Alloy

Strain rate Effects on Tensile Deformation of 2024-O and 7075-O Aluminum Alloy Sheet 4,2; 216-220

304L Stainless Steel

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

7075 Alloy Strain Rate

Strain Rate Effects on Tensile Deformation of 2024-O and 7075-O Aluminum Alloy Sheet 4,2; 216-220

Abrasion

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Abrasive Wear

Computer Modeling of Wear in Extrusion and Forging of Automotive Exhaust Valves 4,2; 161-165

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

AC Magnetic Susceptibility

Preparation and Physical Properties of Polycrystalline $(Bi_{1-x}Pb_x)_2Sr_2Ca_2Cu_3O_y$ High T_c Superconductors 4,1; 54-58

Accelerated Corrosion Test

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Activation Energy

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Adiabatic Shear Banding

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Adiabatic Shear Bands

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Age Hardening

Deformation-Processed Copper-Chromium Alloys: Role of Age Hardening 4,5; 581-586

Aging

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Aging and Environmental Effects on $YBa_2Cu_3O_{6.95}$ Superconductor 4,2; 212-215

Separating the Effects of Ti_3Al and Silicide Precipitates on the Tensile and Crack Growth Behavior at Room Temperature and 593 °C in a Near-Alpha Titanium Alloy 4,3; 301-307

Alloy Design

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Alloy Development

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Alloying Effects

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

Alloying

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Alumina

Effect of Plasma-Sprayed Alumina on the Strength, Elastic Modulus, and Damping of Ti-25Al-10Nb-3V-1Mo Intermetallic 4,3; 252-257

Aluminum Alloys

Experimental and Numerical Investigation of the Effect of Process Parameters on the Erosive Wear of Die Casting Dies 4,2; 166-174

Strain rate Effects on Tensile Defotmation of 2024-O and 7075-O Aluminum Alloy Sheet 4,2; 216-220

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Aluminum Casting Alloy A390

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Aluminum-Magnesium Alloy

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Aluminum

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Material Selection and Grade Optimization Applied to Aluminum Matrix Composites 4,3; 358-367

Amorphous Metals

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Amorphous Structure

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Anisotropy Field

Nitrided and Carbided Magnets 4,4; 441-448

Annealing Effect

Nitrided and Carbided Magnets 4,4; 441-448

AS-Cast

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

Asymmetrical Rolling

Analysis of Asymmetrical Hot Strip Rolling by the Slab Method 4,3; 265-274

Austempered Ductile Cast Iron

The Influence of Chromium on Mechanical Properties of Austempered Ductile Cast Iron 4,1; 90-101

Automobile Sheet Metal Parts

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

Automotive Applications

Future Trends in Metal Forming—Equipment, Materials and Processes in Automotive Applications 4,5; 587-592

Automotive Processes

Future Trends in Metal Forming—Equipment, Materials and Processes in Automotive Applications 4,5; 587-592

Bending

Development of a New Model for Plane Strain Bending and Springback Analysis 4,3; 291-307

Beverage Can Stock Aluminum 3004

Effect of Processing Parameters on the Earing and Mechanical Properties of Strip Cast Type 3004 Al Alloy 4,3; 346-357

Binder Wrap

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

Binder-Phase/Hard-Phase Modification In Hard Metals

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Biomimesis

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Bonded Magnets

Magnequench Magnets Status Overview 4,4; 423-429

Bone

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Boron

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

Bronze

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

C-Mn Steel

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

C1095

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Carbon Steel

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

Ductile Fracture of Carbon Steels: A Review 4,1; 82-89

Carburizing

Case Hardenability at High Carbon Levels 4,1; 106-110

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

Case Hardenability

Case Hardenability at High Carbon Levels 4,1; 106-110

Cavitation

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Chemical Compatibility

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Chip Formation

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Chromia

Growth Behavior of Oxide Forming on a Sputtered Oxygen-Enriched Type 304 Stainless Steel 4,3; 242-247

Chromium

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Coatings

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Coercivity

Nitrided and Carbided Magnets 4,4; 441-448

Composite

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Computer Modeling

Computer Modeling of Wear in Extrusion and Forging of Automotive Exhaust Valves 4,2; 161-165

Computer-Controlled

Study of the Isothermal Transformation of Ductile Iron with 0.5% Cu by Electrical Resistance Measurement 4,5; 551-557

Constitutive Equation

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

Copper-Chromium Alloys

Deformation-Processed Copper-Chromium Alloys: Optimizing Strength and Conductivity 4,5; 573-580

Deformation-Processed Copper-Chromium Alloys: Role of Age Hardening 4,5; 581-586

Corrosion Resistance Of Cemented Carbides

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Corrosion

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

$Cr_{23}C_6$

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Crack Growth Rate

Study of Fatigue Crack Growth Rate for Austenitic Fe-Al-Mn Alloys 4,5; 627-631

Crack Initiation

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Crack Propagation

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Creep

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Cross Shear Region

Analysis of Asymmetrical Hot Strip Rolling by the Slab Method 4,3; 265-274

Cuprates

Aging and Environmental Effects on $YBa_2Cu_3O_{6.95}$ S uperconductor 4,2; 212-215

Cutting Conditions

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

DC Electrical Resistivity

Preparation and Physical Properties of Polycrystalline $(Bi_{1-x}Pb_x)_2Sr_2Ca_2Cu_3O_y$ High T_c Superconductors 4,1; 54-58

Debinding

Atmosphere Control during Debinding of Powder Injection Molded Parts 4,3; 275-282

Deep-Penetration

Analysis and Refinement of a Method for Numerically Modeling Deep-Penetration Welding Processes Using Geometric Constraints 4,6; 717-729

Deformation Processing

Deformation-Processed Copper-Chromium Alloys: Optimizing Strength and Conductivity 4,5; 573-580

Deformation-Processed Copper-Chromium Alloys: Role of Age Hardening 4,5; 581-586

Deformation-heat Treatment

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

Deformation

Ductile Fracture of Carbon Steels: A Review 4,1; 82-89

Design for Machining

Design for Machining Using Expert System and Fuzzy Logic Approach 4,5; 599-609

Die Casting

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Experimental and Numerical Investigation of the Effect of Process Parameters on the Erosive Wear of Die Casting Dies 4,2; 166-174

Diffusion

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

Dislocations

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Dissolution

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Distortion

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

Drawing

Reduction of Friction During Wire Drawing by Electrode Control 4,2; 154-160

Dry Sliding

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

Dry

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Ductile Fracture

Ductile Fracture of Carbon Steels: A Review 4,1; 82-89

Ductile Iron

Study of the Isothermal Transformation of Ductile Iron with 0.5% Cu by Electrical Resistance Measurement 4,5; 551-557

Ductile-Brittle Transition Temperature

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Durability

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Dynamic Strain Aging

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Eddy Currents

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Electric Steels

Magnetic Properties of Thin Gauge 3% Si-Fe with {110}⟨001⟩ Orientation 4,4; 435-440

Texture of Primary Recrystallization on Nonoriented Electrical Steel Sheet with Phase Transformation 4,4; 401-412

Electrical Conductivity

Deformation-Processed Copper-Chromium Alloys: Optimizing Strength and Conductivity 4,5; 573-580

Deformation-Processed Copper-Chromium Alloys: Role of Age Hardening 4,5; 581-586

Electrical Resistance

Study of the Isothermal Transformation of Ductile Iron with 0.5% Cu by Electrical Resistance Measurement 4,5; 551-557

Electrode Control

Reduction of Friction During Wire Drawing by Electrode Control 4,2; 154-160

Electromigration

Oxygen Stoichiometry and Surface Treatment Effect on Electromigration Stability of High-T_c $Tl_2Ba_2CuO_{6+x}$ Superconductor 4,3; 248-251

Emulsion

Reduction of Friction During Wire Drawing by Electrode Control 4,2; 154-160

Erosion

Experimental and Numerical Investigation of the Effect of Process Parameters on the Erosive Wear of Die Casting Dies 4,2; 166-174

Erosive Wear

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

EXAFS

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Expert System

Design for Machining Using Expert System and Fuzzy Logic Approach 4,5; 599-609

Extrusion

Comparison of Extrusion Strains Produced by Cosine and Conical Dies 4,1; 25-31

Computer Modeling of Wear in Extrusion and Forging of Automotive Exhaust Valves 4,2; 161-165

Failure Analysis

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Failure

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Fatigue Crack

Separating the Effects of Ti_3Al and Silicide Precipitates on the Tensile and Crack Growth Behavior at Room Temperature and 593 °C in a Near-Alpha Titanium Alloy 4,3; 301-307

Fatigue

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Fe-Al-Mn Alloy

Study of Fatigue Crack Growth Rate for Austenitic Fe-Al-Mn Alloys 4,5; 627-631

Fe-Ni-B Alloy

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Ferromagnetic Ribbons

Nitrided and Carbided Magnets 4,4; 441-448

Finite Element

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Numerical Simulation of Thixoforming 4,1: 40-47

Finite-Element Analysis

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

Finite-Element Simulation of Moving Induction Heat Treatment 4,4; 460-473

Flow Localization Parameter

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Formability

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Forming Limit Diagram

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Fractograph

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Fracture Toughness

Low-Temperature Fracture Toughness of a Heat-Treated Mild Steel 4,1; 70-81

The Influence of Chromium on Mechanical Properties of Austempered Ductile Cast Iron 4,1; 90-101

Fretting

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Friction

Reduction of Friction During Wire Drawing by Electrode Control 4,2; 154-160

Furnace Facility

A Laboratory Flash Furnace for Strand Annealing Simulation 4,4; 418-422

Fuzzy Logic

Design for Machining Using Expert System and Fuzzy Logic Approach 4,5; 599-609

Gas-Pressure Forming

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Geometric Constraints

Analysis and Refinement of a Method for Numerically Modeling Deep-Penetration Welding Processes Using Geometric Constraints 4,6; 717-729

Grain-Size Effects

Effect of Grain Size on the Superplastic Behavior of a 7475 Aluminum Alloy 4,6; 674-678

H13 Die Steel

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Hard Metal

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Hardenability

Case Hardenability at High Carbon Levels 4,1; 106-110

Hastelloy B-2

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Haynes Alloy 188

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Haynes Alloy 230

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Heat Transfer

A Thermal System Model for a Radiant-Tube Continuous Reheating Furnace 4,5; 519-531

Heat Treatment

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

Separating the Effects of Ti_3Al and Silicide Precipitates on the Tensile and Crack Growth Behavior at Room Temperature and 593 °C in a Near-Alpha Titanium Alloy 4,3; 301-307

Heat-Affected Zone Simulation

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Heat-Treated Mild Steels

Low-Temperature Fracture Toughness of a Heat-Treated Mild Steel 4,1; 70-81

Heating Furnaces

A Thermal System Model for a Radiant-Tube Continuous Reheating Furnace 4,5; 519-531

High Field Measurement

Nitrided and Carbided Magnets 4,4; 441-448

High-Temperature Superconductors

Aging and Environmental Effects on $YBa_2Cu_3O_{6.95}$ Superconductor 4,2; 212-215

Oxygen Stoichiometry and Surface Treatment Effect on Electromigration Stability of High-T_c $Tl_2Ba_2CuO_{6+x}$ Superconductor 4,3; 248-251

Hot Deformed Magnets

Magnequench Magnets Status Overview 4,4; 423-429

Hot Pressed Magnets

Magnequench Magnets Status Overview 4,4; 423-429

Hot Rolling

Control of Recrystallization during High-Temperature Hot-Rolling of Grain-Oriented Silicon Steel 4,4; 413-417

Hot Strip Rolling

Analysis of Asymmetrical Hot Strip Rolling by the Slab Method 4,3; 265-274

Impact Energy

Effect of Inclusions and Microstructural Characteristics on the Mechanical Properties and Fracture Behavior of a High-Strength Low-Alloy Steel 4,6; 679-688

IN-792

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Inclusions

Effect of Inclusions and Microstructural Characteristics on the Mechanical Properties and Fracture Behavior of a High-Strength Low-Alloy Steel 4,6; 679-688

Induced

Induced Stress Relationships for Wing Skin Forming by Shot Peening 4,3; 283-290

Induction Hardening Stresses

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Induction Hardening

Finite-Element Simulation of Moving Induction Heat Treatment 4,4; 460-473

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Inhomogeneous Materials

Ductile Fracture of Carbon Steels: A Review 4,1; 82-89

Injection Molding

Atmosphere Control during Debinding of Powder Injection Molded Parts 4,3; 275-282

Intermetallic Compound

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Interrupted Quench

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Iron-Silicon

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Isothermal Transformation

Study of the Isothermal Transformation of Ductile Iron with 0.5% Cu by Electrical Resistance Measurement 4,5; 551-557

Laser Glazing

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Life Prediction

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Liquid Matrix

Mold Filling of Semisolid Metal Slurries 4,4; 486-493

Liquid-Phase Sintering

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Localized Necking

On the Optimization of Superplastic Blow-Forming Processes 4,4; 474-485

Losses

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Low-Temperature Fracture

Low-Temperature Fracture Toughness of a Heat-Treated Mild Steel 4,1; 70-81

Machining

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Magnetic Ferrites

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Magnetic Ferrous Alloys

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Magnetic Films

Structure and Magnetic Properties of Sputtered Nd-Fe-B Alloys 4,2; 188-195

Magnetic Powder Core

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Magnetic Properties

Structure and Magnetic Properties of Sputtered Nd-Fe-B Alloys 4,2; 188-195

Magnetic Saturation

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Magnetic

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Magnetism

A Laboratory Flash Furnace for Strand Annealing Simulation 4,4; 418-422

Material Optimization

Material Selection and Grade Optimization Applied to Aluminum Matrix Composites 4,3; 358-367

Material Stability

On the Optimization of Superplastic Blow-Forming Processes 4,4; 474-485

Mathematical Model

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

Mathematical Modeling

Development of a New Model for Plane Strain Bending and Springback Analysis 4,3; 291-307

Mechanical Anisotropy (Earing)

Effect of Processing Parameters on the Earing and Mechanical Properties of Strip Cast Type 3004 Al Alloy 4,3; 346-357

Mechanical Properties of Cemented Carbides

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Mechanical Properties

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

Strengthening Characteristics of Nitrogen-Alloyed 201 Stainless Steel 4,6; 697-708

The Influence of Chromium on Mechanical Properties of Austempered Ductile Cast Iron 4,1; 90-101

Mechanisms

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Melt Temperature

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Melt Turbulence

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Merit Parameter

Material Selection and Grade Optimization Applied to Aluminum Matrix Composites 4,3; 358-367

Metal Cutting

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Metal Forming

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Metal Matrix Composite

Material Selection and Grade Optimization Applied to Aluminum Matrix Composites 4,3; 358-367

Metal-matrix Composite

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Microhardness

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

Microstructure

Evaluation of Microstructure and Phase Relations in a Powder Processed Ti-44Al-12Nb Alloy 4,1; 63-69

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Modeling

Numerical Simulation of Thixoforming 4,1: 40-47

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Mold Filling

Mold Filling of Semisolid Metal Slurries 4,4; 486-493

Molten Aluminum

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Multiple *N* Behavior

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

N Value

Study of Fatigue Crack Growth Rate for Austenitic Fe-Al-Mn Alloys 4,5; 627-631

Nanostructures

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Natural Materials

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Nd-Fe-B Magnets

Magnequench Magnets Status Overview 4,4; 423-429

Neodymium

Magnequench Magnets Status Overview 4,4; 423-429

Nickel-Based Alloys

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Niobium Microalloying

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Nitric Acid Service

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Nitrogen Steels

Strengthening Characteristics of Nitrogen-Alloyed 201 Stainless Steel 4,6; 697-708

Non-Oriented Steels

On-Line Hardness Assessment of Cold-Rolled Motor Lamination Steels 4,4; 449-452

Nuclear Fuel Reprocessing Plant

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Numerical Modeling

Analysis and Refinement of a Method for Numerically Modeling Deep-Penetration Welding Processes Using Geometric Constraints 4,6; 717-729

On-Line Mechanical Hardness

On-Line Hardness Assessment of Cold-Rolled Motor Lamination Steels 4,4; 449-452

Oxidation

Growth Behavior of Oxide Forming on a Sputtered Oxygen-Enriched Type 304 Stainless Steel 4,3; 242-247

Paris Equation

Study of Fatigue Crack Growth Rate for Austenitic Fe-Al-Mn Alloys 4,5; 627-631

Pearlite Banding

Effect of Inclusions and Microstructural Characteristics on the Mechanical Properties and Fracture Behavior of a High-Strength Low-Alloy Steel 4,6; 679-688

Peening

Induced Stress Relationships for Wing Skin Forming by Shot Peening 4,3; 283-290

Percentage Elongation

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Permanent Magnets

Magnequench Magnets Status Overview 4,4; 423-429

Phase Analysis

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2.$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Phase Relations

Evaluation of Microstructure and Phase Relations in a Powder Processed Ti-44Al-12Nb Alloy 4,1; 63-69

Phase Transformation

The Influence of Chromium on Mechanical Properties of Austempered Ductile Cast Iron 4,1; 90-101

Plasma Spray

Effect of Plasma-Sprayed Alumina on the Strength, Elastic Modulus, and Damping of Ti-25Al-10Nb-3V-1Mo Intermetallic 4,3; 252-257

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Plate

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Polystyrene

A Study of Shock Characterization for Protective Packaging Design 4,3; 308-313

Powder Metallurgy

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Evaluation of Microstructure and Phase Relations in a Powder Processed Ti-44Al-12Nb Alloy 4,1; 63-69

Powder Metals

Comparison of Extrusion Strains Produced by Cosine and Conical Dies 4,1; 25-31

Precipitation

Effect of Processing Parameters on the Earing and Mechanical Properties of Strip Cast Type 3004 Al Alloy 4,3; 346-357

Process Modeling

A Thermal System Model for a Radiant-Tube Continuous Reheating Furnace 4,5; 519-531

Finite-Element Simulation of Moving Induction Heat Treatment 4,4; 460-473

Quench Modeling

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Quench-Heat Transfer

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Quenching

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Rapid Solidification

Magnequench Magnets Status Overview 4,4; 423-429

Rare Earth Alloys

Structure and Magnetic Properties of Sputtered Nd-Fe-B Alloys 4,2; 188-195

Reciprocating

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Recrystallization

Control of Recrystallization during High-Temperature Hot-Rolling of Grain-Oriented Silicon Steel 4,4; 413-417

Effect of Processing Parameters on the Earing and Mechanical Properties of Strip Cast Type 3004 Al Alloy 4,3; 346-357

Magnetic Properties of Thin Gauge 3% Si-Fe with {110}⟨001⟩ Orientation 4,4; 435-440

Texture of Primary Recrystallization on Nonoriented Electrical Steel Sheet with Phase Transformation 4,4; 401-412

Residual Strength

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Residual Stress

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Seawater

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

Self-Diffusion

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

SEM

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

semisolid processing

Mold Filling of Semisolid Metal Slurries 4,4; 486-493

Numerical Simulation of Thixoforming 4,1: 40-47

shape

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

shear localization

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

sheet aluminum

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

sheet forming

Development of a New Model for Plane Strain Bending and Springback Analysis 4,3; 291-307

sheet metal working

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

sheet steel

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

sheets

Strain rate Effects on Tensile Deformation of 2024-O and 7075-O Aluminum Alloy Sheet 4,2; 216-220

Shock Protection

A Study of Shock Characterization for Protective Packaging Design 4,3; 308-313

Shot

Induced Stress Relationships for Wing Skin Forming by Shot Peening 4,3; 283-290

Silicide

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Silicon Steels

Control of Recrystallization during High-Temperature Hot-Rolling of Grain-Oriented Silicon Steel 4,4; 413-417

Magnetic Properties of Thin Gauge 3% Si-Fe with {110}⟨001⟩ Orientation 4,4; 435-440

Simulation

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Sintering

Atmosphere Control during Debinding of Powder Injection Molded Parts 4,3; 275-282

Slab Method

Analysis of Asymmetrical Hot Strip Rolling by the Slab Method 4,3; 265-274

Solid Particles

Mold Filling of Semisolid Metal Slurries 4,4; 486-493

Splitting Phenomenon

Effect of Inclusions and Microstructural Characteristics on the Mechanical Properties and Fracture Behavior of a High-Strength Low-Alloy Steel 4,6; 679-688

Springback

Development of a New Model for Plane Strain Bending and Springback Analysis 4,3; 291-307

Sputtered Permanent Magnets

Structure and Magnetic Properties of Sputtered Nd-Fe-B Alloys 4,2; 188-195

SR-200 Beryllium

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Stability

Oxygen Stoichiometry and Surface Treatment Effect on Electromigration Stability of High-T_c $Tl_2Ba_2CuO_{6+x}$ Superconductor 4,3; 248-251

Steel

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Strain Hardening Index

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Strain Hardening

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

Strain Rate Hardening

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

Strain Rate Sensitivity

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Strain

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Strain

Comparison of Extrusion Strains Produced by Cosine and Conical Dies 4,1; 25-31

Stress

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Stress (Residual) Calculations

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Stress Impirical

Induced Stress Relationships for Wing Skin Forming by Shot Peening 4,3; 283-290

Structural Materials

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Structure

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Subfine-Grained Structure

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

Sulfur

Growth Behavior of Oxide Forming on a Sputtered Oxygen-Enriched Type 304 Stainless Steel 4,3; 242-247

Superalloys

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Superconductivity

Preparation and Physical Properties of Polycrystalline $(Bi_{1-x}Pb_x)_2Sr_2Ca_2Cu_3O_y$ High T_c Superconductors 4,1; 54-58

Superplastic Forming

On the Optimization of Superplastic Blow-Forming Processes 4,4; 474-485

Superplasticity

Effect of Grain Size on the Superplastic Behavior of a 7475 Aluminum Alloy 4,6; 674-678

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Surface Boundary Condition

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

Surface Treatments

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

Switching Power Supplies

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Tensile Properties

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Tensile Test

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

Texture

Magnetic Properties of Thin Gauge 3% Si-Fe with {110}⟨001⟩ Orientation 4,4; 435-440

Texture of Primary Recrystallization on Nonoriented Electrical Steel Sheet with Phase Transformation 4,4; 401-412

Thermal Barrier

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Thermal Cycling Test

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Thermal Energy Storage

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Thermal Modeling

A Thermal System Model for a Radiant-Tube Continuous Reheating Furnace 4,5; 519-531

Thixoforming

Numerical Simulation of Thixoforming 4,1: 40-47

Ti-5Ta

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Ti-Al-Nb-V-Mo Intermetallic

Effect of Plasma-Sprayed Alumina on the Strength, Elastic Modulus, and Damping of Ti-25Al-10Nb-3V-1Mo Intermetallic 4,3; 252-257

TiN

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Titanium Alloy

Evaluation of Microstructure and Phase Relations in a Powder Processed Ti-44Al-12Nb Alloy 4,1; 63-69

Separating the Effects of Ti_3Al and Silicide Precipitates on the Tensile and Crack Growth Behavior at Room Temperature and 593 °C in a Near-Alpha Titanium Alloy 4,3; 301-307

Titanium—1100

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Titanium

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Transformer

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Transition Fracture Modes

Low-Temperature Fracture Toughness of a Heat-Treated Mild Steel 4,1; 70-81

Trends Metal Forming

Future Trends in Metal Forming—Equipment, Materials and Processes in Automotive Applications 4,5; 587-592

Turbine Blades

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Type 201 Stainless Steel

Strengthening Characteristics of Nitrogen-Alloyed 201 Stainless Steel 4,6; 697-708

Type 7475 Aluminum Alloy

Effect of Grain Size on the Superplastic Behavior of a 7475 Aluminum Alloy 4,6; 674-678

Ultimate Tensile Strength

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Ultrafine Powder

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Valve Forging

Computer Modeling of Wear in Extrusion and Forging of Automotive Exhaust Valves 4,2; 161-165

Washout

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

WC-10Co Cemented Carbides

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Wear Intensity

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

Wear Resistant Coating

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Wear

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Weibull Analysis

Effect of Plasma-Sprayed Alumina on the Strength, Elastic Modulus, and Damping of Ti-25Al-10Nb-3V-1Mo Intermetallic 4,3; 252-257

Weldments

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Wire Rope

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Wood

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Work Hardening

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

X-ray Diffraction

Aging and Environmental Effects on $YBa_2Cu_3O_{6.95}$ Superconductor 4,2; 212-215

XPS

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Yield Strength

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Yttria-stabilized Zirconia

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-YO1.5/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Zr-2.5Nb

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Volume 4 Title Index 1995

"As-Cast" Shape Related to Heat Treatment Distortion in Circular-Shaped Engineering Components 4,3; 259-264

A Fatigue-Life Prediction Methodology for Notched Aluminum-Magnesium Alloy in Gulf Seawater Environment 4,5; 617-623

A Laboratory Flash Furnace for Strand Annealing Simulation 4,4; 418-422

A Study of Erosion in Die Casting Dies by a Multiple Pin Accelerated Erosion Test 4,2; 145-153

A Study of Shock Characterization for Protective Packaging Design 4,3; 308-313

A Study of the Behavior of Boron Diffusion in Plain Carbon Steels 4,1; 59-62

A Thermal System Model for a Radiant-Tube Continuous Reheating Furnace 4,5; 519-531

Aging and Environmental Effects on $YBa_2Cu_3O_{6.95}$ Superconductor 4,2; 212-215

Aging Effects on the Creep Behavior of the Near-Alpha Titanium Alloy Ti-1100 4,2; 182-187

Analysis and Refinement of a Method for Numerically Modeling Deep-Penetration Welding Processes Using Geometric Constraints 4,6; 717-729

Analysis of Asymmetrical Hot Strip Rolling by the Slab Method 4,3; 265-274

Analytical and Experimental Study of Shear Localization in Chip Formation in Orthogonal Machining 4,1; 32-39

Assessment of the Cold Formability of Ferritic Steels Using Parameters Determined in Uniaxial Tensile Testing 4,6; 745—755

Atmosphere Control during Debinding of Powder Injection Molded Parts 4,3; 275-282

Case Hardenability at High Carbon Levels 4,1; 106-110

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Comparison of Dry Wear Characteristics of Two Abrasion-Resistant Steels: Q/T C1095 and 15B37H 4,5; 558-562

Comparison of Extrusion Strains Produced by Cosine and Conical Dies 4,1; 25-31

Computer Modeling of Wear in Extrusion and Forging of Automotive Exhaust Valves 4,2; 161-165

Control of Recrystallization during High-Temperature Hot-Rolling of Grain-Oriented Silicon Steel 4,4; 413-417

Corrosion Behavior of Weldments of Ti and Ti-5Ta for Nuclear Fuel Reprocessing Plants 4,6; 756-760

Deformation-Processed Copper-Chromium Alloys: Optimizing Strength and Conductivity 4,5; 573-580

Deformation-Processed Copper-Chromium Alloys: Role of Age Hardening 4,5; 581-586

Design for Machining Using Expert System and Fuzzy Logic Approach 4,5; 599-609

Development and Application of Amorphous Core-Distribution Transformers in Québec 4,4; 430-434

Development of a New Model for Plane Strain Bending and Springback Analysis 4,3; 291-307

Development of Design Principles for a Creep-Limited Alloy for Turbine Blades 4,1; 48-53

Ductile Fracture of Carbon Steels: A Review 4,1; 82-89

Effect of Binder-Phase Modification and Cr_3C_2 Addition on Properties of WC-10Co Cemented Carbide 4,5; 563-572

Effect of Grain Size on the Superplastic Behavior of a 7475 Aluminum Alloy 4,6; 674-678

Effect of Inclusions and Microstructural Characteristics on the Mechanical Properties and Fracture Behavior of a High-Strength Low-Alloy Steel 4,6; 679-688

Effect of Plasma-Sprayed Alumina on the Strength, Elastic Modulus, and Damping of Ti-25Al-10Nb-3V-1Mo Intermetallic 4,3; 252-257

Effect of Processing Parameters on the Earing and Mechanical Properties of Strip Cast Type 3004 Al Alloy 4,3; 346-357

Effects of Molten Aluminum on H13 Dies and Coatings 4,2; 175-181

Evaluation of Microstructure and Phase Relations in a Powder Processed Ti-44Al-12Nb Alloy 4,1; 63-69

Experimental and Numerical Investigation of the Effect of Process Parameters on the Erosive Wear of Die Casting Dies 4,2; 166-174

Failure of Cross-Rolled Beryllium Plates due to a Point Load 4,3; 314-320

Finite-Element Analysis and Design of Binder Wraps for Automobile Sheet Metal Parts Using Surface Boundary Condition 4,5; 593-598

Finite-Element Simulation of Moving Induction Heat Treatment 4,4; 460-473

Growth Behavior of Oxide Forming on a Sputtered Oxygen-Enriched Type 304 Stainless Steel 4,3; 242-247

High-Temperature Mechanical Behavior of Cold-Worked Stress-Relieved Zr-2.5Nb 4,5; 610-616

Induced Stress Relationships for Wing Skin Forming by Shot Peening 4,3; 283-290

Influence of Niobium on Structure/Property Relationships in C-Mn Shipbuilding Steel 4,5; 532-542

Inverse Resolution of the Heat-Transfer Equation: Application to Steel and Aluminum Alloy Quenching 4,6; 730-736

Low-Temperature Fracture Toughness of a Heat-Treated Mild Steel 4,1; 70-81

Magnequench Magnets Status Overview 4,4; 423-429

Magnetic Properties of Thin Gauge 3% Si-Fe with {110}⟨001⟩ Orientation 4,4; 435-440

Material Selection and Grade Optimization Applied to Aluminum Matrix Composites 4,3; 358-367

Microstructures and Properties of Laser-Glazed Plasma-Sprayed ZrO_2-$YO_{1.5}$/Ni-22Cr-19Al-1Y Thermal Barrier 4,6; 689-696

Mimicry of Natural Material Designs and Processes 4,3; 334-345

Mold Filling of Semisolid Metal Slurries 4,4; 486-493

Nitrided and Carbided Magnets 4,4; 441-448

Numerical and Experimental Investigation of Adiabatic Shear Bands in Metals under Low-Velocity Impact Conditions 4,6; 709-716

Numerical Simulation of Thixoforming 4,1: 40-47

On Certain Aspects of Strain Rate Sensitivity of Sheet Metals 4,3; 321-333

On the Optimization of Superplastic Blow-Forming Processes 4,4; 474-485

On-Line Hardness Assessment of Cold-Rolled Motor Lamination Steels 4,4; 449-452

Oxygen Stoichiometry and Surface Treatment Effect on Electromigration Stability of High-T_c $Tl_2Ba_2CuO_{6+x}$ Superconductor 4,3; 248-251

Preparation and Physical Properties of Polycrystalline $(Bi_{1-x}Pb_x)_2Sr_2Ca_2Cu_3O_y$ High T_c Superconductors 4,1; 54-58

Properties and Structure of Ultrafine Amorphous Fe-Ni-B Powder Obtained by Borohydride Reduction 4,4; 453-459

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Recent Progress in the Modeling of High-Temperature Creep and Its Application to Alloy Development 4,2; 196-211

Reduction of Friction During Wire Drawing by Electrode Control 4,2; 154-160

Residual Strength of a Thermomechanically Fatigued TIMETAL 21S/SCS-6 Composite 4,5; 624-626

Separating the Effects of Ti_3Al and Silicide Precipitates on the Tensile and Crack Growth Behavior at Room Temperature and 593 °C in a Near-Alpha Titanium Alloy 4,3; 301-307

Strain rate Effects on Tensile Deformation of 2024-O and 7075-O Aluminum Alloy Sheet 4,2; 216-220

Strengthening Characteristics of Nitrogen-Alloyed 201 Stainless Steel 4,6; 697-708

Structure and Magnetic Properties of Sputtered Nd-Fe-B Alloys 4,2; 188-195

Study of Fatigue Crack Growth Rate for Austenitic Fe-Al-Mn Alloys 4,5; 627-631

Study of the Isothermal Transformation of Ductile Iron with 0.5% Cu by Electrical Resistance Measurement 4,5; 551-557

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Superplastic Forming Characteristics of Fine-Grained 5083 Aluminum 4,5; 543-550

Tensile Properties and Structure of Several Superalloys after Long-Term Exposure to LiF and Vacuum at 1173 K 4,6; 657-673

Texture of Primary Recrystallization on Nonoriented Electrical Steel Sheet with Phase Transformation 4,4; 401-412

The Influence of Chromium on Mechanical Properties of Austempered Ductile Cast Iron 4,1; 90-101

The Influence of the Structural State on Wear of Bronze CuAlFe 4,1; 102-105

The Magnetic Applications Choice Among Ferrite Ceramics, Metallic Strips, or Metal Powder Cores 4,4; 395-400

Thermoelastoplastic and Residual Stress Analysis during Induction Hardening of Steel 4,6; 737-744

Wear Mechanisms in a Nonrotating Wire Rope 4,2; 136-144

Abe, N. 4,4; 435-440
Akimov, A.I. 4,3; 248-251
Alberts, F.A. 4,1; 90-101
Alexandrov, N. 4,4; 430-434
Anderson, I.E. 4,3; 275-282
Archambault, P. 4,6; 730-736
Arnell, R.D. 4,3; 242-247
Awan, M.S. 4,1; 54-58
Azim, A. 4,6; 730-736
Banerjee, D. 4,5; 563-572
Bartosiewicz, L. 4,1; 90-101
Bayoumi, A.E. 4,1; 32-39
4,4; 474-485
Beckley, P. 4,4; 449-452
Berge, P.M. 4,5; 573-580
Berghaus, D.G. 4,1; 25-31
Biswas, D.K. 4,5; 532-542
Bond, G.M. 4,3; 334-345
Bowles, D.A. 4,3; 252-258
Brown, S. 4,4; 486-493
Cantu, M.W. 4,3; 252-258
Cardenas-Garcia, J.F. 4,6; 709-716
Carpenter, R.G. 4,3; 283-290
Chama, C.C. 4,1; 70-81
Chandrasekar, S. 4,4; 460-473
Chang, Y.-P. 4,5; 627-631
Chen, E.T. 4,5; 551-557
Chernyakova, A.P. 4,3; 248-251
Chew, A. 4,3; 242-247
Chu, Y.-L. 4,2; 145-153
Clayton, T. 4,6; 709-716
Cristinacce, M. 4,3; 259-264
Dayal, R.K. 4,6; 756-760
Deshmukh, V.P. 4,5; 532-542
Ding, X.D. 4,4; 474-485
Dogan, C.P. 4,2; 136-144
Dorward, R.C. 4,2; 216-220
Duggirala, R. 4,5; 587-592
Dyakin, V.V. 4,3; 248-251
Eliasson, J. 4,3; 358-367
Ellis, T.W. 4,5; 581-586
Es-Said, O.S. 4,3; 346-357
Friedman, P.A. 4,5; 543-550
Ghonem, H. 4,2; 182-187
4,3; 301-307
Ghosh, A.K. 4,5; 543-550
Gnanamoorthy, J.B. 4,6; 756-760
Goldman, A. 4,4; 395-400
Gong, W. 4,4; 441-448
Gunnarson, S. 4,3; 259-264
Hadjipanayis, G.C. 4,4; 441-448
Hamilton, C.H. 4,4; 474-485
Hashemi, J. 4,6; 709-716
Hasse, K.R. 4,2; 216-220
Hawk, J.A. 4,2; 136-144
Heinol, C. 4,6; 709-716
Hitz, D. 4,5; 587-592
Holthus, J. 4,1; 63-69
Huda, Z. 4,1; 48-53
Huh, H. 4,5; 593-598
Hwang, Y.-M. 4,3; 265-274
Ilegbusi, O.J. 4,4; 486-493
Inokuchi, T. 4,4; 435-440
Iqbal, K. 4,5; 558-562
Irick, E. 4,6; 709-716
Jahanian, S. 4,6; 737-744
Jarding, B.P. 4,3; 275-282
Jha, S. 4,6; 679-688
Johansen, D. 4,3; 346-357
Johnson, D. 4,3; 242-247
Johnson, J. 4,3; 283-290
Kalambur, G.J. 4,5; 599-609
Kan, T. 4,4; 413-417
Kanazawa, C.H. 4,5; 624-626
Kapoor, K. 4,5; 610-616
Khan, Z. 4,5; 617-623
Kikuchi, M. 4,4; 435-440
Kim, C. 4,5; 543-550
Kim, S. 4,5; 543-550
Kim, S.T. 4,5; 573-580
4,5; 581-586
Kornilov, N.V. 4,2; 188-195
Krause, A.R. 4,1; 90-101
Kubota, T. 4,4; 401-412
Kumano, T. 4,4; 401-412
4,4; 435-440
Kumar, S.G. 4,1; 63-69
Lal, G.K. 4,5; 563-572
Lambrakos, S.G. 4,6; 717-729
Lawley, A. 4,1; 40-47
Lee, D. 4,3; 291-300
Lee, J.H. 4,5; 593-598
Lee, S.-C. 4,5; 627-631
Lees, D.G. 4,3; 242-247
Lei, T.S. 4,5; 551-557
Lew, S.C. 4,3; 308-313
Lin, B.Y. 4,5; 551-557
Linetsky, Ya.L. 4,2; 188-195
Liu, T.I. 4,5; 599-609
Lograsso, B.K. 4,3; 275-282
Lund, T. 4,3; 259-264
Lye, S.W. 4,3; 308-313
Madsen, A. 4,2; 182-187
Madsen, A. 4,3; 301-307
Mahidhara, R.K. 4,6; 674-678
Maqsood, A. 4,1; 54-58
Maqsood, M. 4,1; 54-58
Marek, M. 4,2; 154-160
Mascorro, E. 4,3; 314-320
Mateen, A. 4,2; 212-215
McCue, J.M. 4,1; 25-31
McNaughton, W.P. 4,3; 334-345
Meuleman, D.J. 4,3; 321-333
Milewski, J. 4,6; 717-729
Mirza, S.A. 4,1; 54-58
Moore, J.A. 4,3; 275-282
Moses, A.J. 4,4; 449-452
Mudali, U.K. 4,6; 756-760
Muraki, M. 4,4; 413-417
Murlidharan, K. 4,5; 610-616
Murthy, A.S. 4,4; 441-448
Northwood, D.O. 4,2; 196-211
O'Brien, M. 4,3; 346-357
Obara, T. 4,4; 413-417
Okazaki, Y. 4,4; 435-440
Ollilainen, V. 4,6; 745-755
Page, J.H.R. 4,4; 418-422
Panchanathan, V. 4,4; 423-429
Paul, S.K. 4,6; 679-688
Peacock, H.B. 4,1; 25-31
Pirzada, Z.M. 4,2; 212-215
Pospiech, J. 4,1; 82-89
Putatunda, S.K. 4,1; 90-101
Qian, L.L. 4,1; 59-62
Quattrocchi, J. 4,3; 346-357
Ramadhyani, S. 4,5; 519-531
Ramamurthy, H. 4,5; 519-531
Rapp, R.A. 4,2; 175-181
Rawers, J. 4,6; 697-708
Ray, A. 4,6; 679-688
Reddy, R.G. 4,1; 63-69
Richman, R.H. 4,3; 334-345
Roberge, R. 4,4; 430-434
Roschke, P.N. 4,3; 314-320
Rosenberger, A.H. 4,2; 182-187
Ruhl, D. 4,3; 346-357
Ruprich, M. 4,3; 346-357
Sadhneni, R. 4,6; 709-716
Sadykov, F.A. 4,1; 102-105
Sandström, R. 4,3; 358-367
Satoh, M. 4,4; 413-417
Schmidt, C.G. 4,5; 624-626
Schrems, K.K. 4,2; 136-144
Schulz, R. 4,4; 430-434
Shah, A.K. 4,5; 532-542
Shi, L. 4,2; 196-211
Shi, M.F. 4,3; 321-333
Shin, K.H 4,3; 346-357
Shivpuri, R. 4,2; 145-153
4,2; 161-165
4,2; 166-174
4,2; 175-181
Shockey, D.A. 4,5; 624-626
Siddiqi, S.A. 4,2; 212-215
Sim, G. 4,5; 558-562
Simoneau, R. 4,4; 430-434
Singh, I. 4,1; 90-101
Slavens, G. 4,6; 697-708
Soghomonian, Z.S. 4,4; 449-452
Song, I.S. 4,5; 593-598
Sreedharan, K.M. 4,5; 610-616
Stone, G.A. 4,1; 59-62
Su, Y.-Y. 4,2; 154-160
Tétreault, J. 4,4; 430-434
Takahashi, N. 4,4; 401-412
Tanatar, M.A. 4,3; 248-251
Tandon, K.N. 4,5; 558-562
Tang, G.-H. 4,5; 627-631
Tao, M.Y 4,3; 308-313
Thomas, M. 4,3; 346-357
Tijoe, W.H. 4,3; 346-357
Tsai, H.L. 4,6; 689-696
Tsai, P.C. 4,6; 689-696
Tulsyan, R. 4,2; 161-165
Tzou, G.-Y. 4,3; 265-274
Upadhyaya, G.S. 4,5; 563-572
Ushigami, Y. 4,4; 435-440
Vaidya, R.U. 4,3; 252-258
VanLuchene, R.D. 4,3; 283-290
Venkatesan, K. 4,2; 145-153
4,2; 166-174
Verhoeven, J.D. 4,5; 573-580
4,5; 581-586
Verma, R. 4,5; 543-550
Viskanta, R. 4,5; 519-531
Volkmuth, J. 4,3; 259-264
Walton, H.W. 4,1; 106-110
Wang, K.F. 4,4; 460-473
Wang, Y. 4,5; 558-562
Whittenberger, J.D. 4,6; 657-673
Wolfenden, A. 4,3; 252-258
Wu, J. 4,1; 63-69
Xie, J.Q. 4,1; 32-39
Yadaw, S.B. 4,5; 532-542

Yang, D.Y.	4,5; 593-598	Younas, M.	4,5; 617-623	Zeihen, A.	4,3; 346-357
Yang, F.M.	4,4; 441-448	Yousaf, M.	4,1; 54-58	Zhang, J.-G.	4,4; 453-459
Yang, H.T.Y.	4,4; 460-473	Yu, M.	4,2; 145-153	Zhang, Z.T.	4,3; 291-300
Yang, X.M.	4,5; 599-609		4,2; 175-181	Zheng, Y.H.	4,4; 441-448
Yefanov, V.S	4,3; 248-251	Zavaliangos, A.	4,1; 40-47	Zhou, L.	4,3; 242-247
Yoo, D.J.	4,5; 593-598	Zbib, H.M.	4,1; 32-39	Zuhair, G.	4,5; 617-623
Yoon, J.W.	4,5; 593-598		4,4; 474-485	Zurek, A.K.	4,3; 252-258